SECRET

CONFIDENTIAL

Burial Container, Weapons

4B.

Doc 9E

In replying please address:

25X1

May 14, 1957

Dear Sir:

In accordance with recent discussions with your technical representative, we are herewith submitting a proposed research program that is directed toward the modification and improvement of the prototype stainless steel, rectangular-cross-sectioned container developed under Task Order No. D.

On May 29, 1956, Task Order No. D was undertaken to develop a rectangular-cross-sectioned container which would be used for underground burial and which was expected to satisfy several requirements. These requirements are described in detail in our proposal dated April 23, 1956. The effort on this program has resulted in three prototype rectangular-cross-sectioned containers which satisfy the originally indicated requirements. In a conversation with your representative on May 2, 1957, further evaluation of the prototype-container design was discussed. The research program proposed here is directed toward investigating further the ability of the prototype container to withstand changes in internal pressure without leaking.

If a container such as the experimental unit of interest is closed at 70 F, a reduction in the container temperature to 0 F will create a vacuum inside the container, while an increase in the temperature to 100 F will create a pressure inside the container. Because it is expected that the temperature of a container such as the prototype unit may vary from about 0 to

25X1

CONFIDENTIAL

SECRET

May 14, 1957

100 F under service conditions, and consequently the internal pressure would vary, it appears prudent to determine whether such cycling will cause the prototype container to leak, and allow water surrounding the unit to enter.

It is proposed that an empty prototype container be cycled between about 3-1/2-psi vacuum and 3-psi pressure, corresponding to the conditions under the above-indicated temperature extremes, approximately six times a day for about five days. This cycling would be done slowly by one of our personnel adjusting hand valves while checking the gages. Each cycling operation would probably require about 1/2 hour. It is believed that this rate of cycling and this total number of cycles would constitute a reasonable simulation of the conditions to which an underground-burial container might be subjected in service. At all times during the cycling, the experimental container would be under water. The unit would be examined at the end of the experiment for visible evidence of leakage. If leakage is encountered under these conditions, consideration would be given to eliminating the causes of the leakage, under another contractual arrangement.

We propose to undertake this effort for a period of three months, starting on the date of acceptance of authorization from the Contracting Officer to proceed. The proposed investigation could be conducted under Task Order No. A, as amended, of our current contract. The Work Order would be a period-basis agreement; it could be similar in form to those used previously under Task Order No. A and the same administrative procedures would be followed. The Work Order would require only that the research be directed

~~SECRET~~

CONFIDENTIAL

toward the objective outlined above, within the limits of the time and funds provided.

It is estimated that an appropriation of $1,972, including the fixed fee, would cover the proposed program for the three-month period. The following general breakdown of the estimated costs would be applicable:

(a)	Materials, Supplies, etc. (Including any equipment which may be purchased as necessary to the research)	$ 75	
(b)	Use of Equipment, Technical Services, Travel, and Miscellaneous	$ 240	
(c)	Salaries and Wages	$1,030	
(d)	Overhead (Provisional rate, 50% of (c) above)	$ 515	
	ESTIMATED TOTAL COST		$1,860
(e)	Fixed Fee	$ 112	
	ESTIMATED TOTAL APPROPRIATION		$1,972

Liaison with your technical representative would be maintained by discussions during his periodic visits here. At the conclusion of the proposed research period, we would submit a summary report describing the activity performed under the proposed program.

Should any additional information be needed, please let us know.

You may direct your inquiries to [redacted] 25X1

Very truly yours,

[redacted] 25X1

Vice President

EES:vh

In Duplicate

CONFIDENTIAL

~~SECRET~~